**Wheat (Triticum aestivum)** is a cool-season annual grass, effective as a cover crop for weed suppression, erosion control, and as a livestock grazing supplement. *(Photo by Jason Johnson)*

### Identifying Features
- Medium-sized clasping, hairy auricles
- Leaf margins are smooth near the base and rough near the tip
- Medium ligule, may be toothed

### Cultural Traits
- Cool-season annual grass
- Minimum germination soil temperature: 38°F
- Cold tolerance temperature: -15°F (W) 20°F (S)***
- Seeding date: Mid August to Mid October* (W)
- Seeding date: Mid August to Late September* (S)

### Planting Information*
- Drill/Plant at ¾ - 1½ inches (60 lbs./acre PLS)**
-Broadcast (66 lbs./acre PLS)
- Aerial (75 lbs./acre PLS)

*Planting information from Midwest Cover Crop Council (midwestcovercrops.org). Refer to local NRCS office recommendations (Iowa Field Office Technical Guide; Section 4, 340 Cover Crop) for seeding dates and rates pertinent to location specific financial assistance program requirements.

**Pure Live Seed
***W=Winter Wheat  S=Spring Wheat

### Additional planting information:
- ~11,000 seeds/lb. (1 bushel = 60 pounds)
- If grazing or weed suppression is desired, increase seeding rate.
- Broadcasting without incorporation is usually less dependable than drilling or broadcasting with incorporation.
- Use a low seeding rate for areas with sandy soil or that are prone to dry periods in early spring.

### C:N (Carbon:Nitrogen) Ratios
- Winter Wheat 20:1
Performance

Dry matter = 2,000 - 5,000 lbs./acre per year
(Biomass quantity is dependent on planting and termination dates and precipitation.)

Performance Ratings

- Cash crop interseed (early vegetative) Very good
- Cash crop overseed (late seed fill) Excellent
- Grazing quality Excellent
- Mechanical forage harvest Excellent
- Nitrogen fixer NA
- Nitrogen scavenger Excellent
- Weed suppression Very good
- Compaction fighter Good
- Erosion control Excellent
- Lasting residue Excellent
- Quick grower Very good
- Drought tolerance Good
- Low fertility tolerance Very good
- Shade tolerance Good

Additional Considerations

- Increased pest pressure: Wheat could increase risk of spring cutworm; wheat is a host for penetrans root lesion nematode.
- Termination: Time cover crop termination based on goals and experience level. To reduce potential negative impacts on cash crops, consider terminating earlier in the season when conditions are dry or when green bridge or nitrogen tie-up are a concern. For crop insurance compliance, follow NRCS cover crop termination guidelines.
  - Wheat does not grow as aggressively as cereal rye in the spring.
  - Early season nitrogen applications can help reduce the effects of nitrogen tie-up by the cover crops.

Wheat Plant and Root Structure

This fact sheet is a collaborative effort of USDA’s Natural Resources Conservation Service (NRCS) and Iowa State University Extension and Outreach to provide cover crop options and information for Iowa landowners.

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